

In the Claims

1. (currently amended) A semiconductor device, comprising:
a semiconductor die having first and second bonding pads
formed on a major surface and further having first and second
edges; and

~~an a first inductor including a first bonding wire attached~~
~~to a top surface of the semiconductor die at one end to the first~~
~~bonding pad and at a second end to the second bonding pad,~~
wherein the first inductor and extended extends laterally a
distance greater than a height of the bonding wire to define an
insulating core, and wherein the first inductor projects
laterally over the first edge at least at two locations.

2. (currently amended) The semiconductor device of claim 1,
wherein the insulating core is centered along an axis
substantially perpendicular to the major surface. ~~the first~~
~~bonding wire has first and second ends respectively attached to~~
~~first and second bonding pads on the top surface.~~

3. (currently amended) The semiconductor device of claim 2,
1, further comprising:

first and second leads in spaced relationship with the
semiconductor die; and

a second inductor including a second bonding wire attached
at one end to the first lead and attached at a second end to the
second lead. ~~wherein the first bonding wire is extended from the~~
~~first and second bonding pads to vertically overlie an edge of~~
~~the top surface.~~

4. (currently amended) The semiconductor device of claim 1,
wherein the first bonding wire is formed with a coil that
surrounds the insulating core, and wherein the insulating core is

substantially centered along an axis running parallel to the first edge.

5. (currently amended) The semiconductor device of claim 4, further comprising a second inductor including a second bonding wire attached at a first end to a third bonding pad on the semiconductor die and at a second end to a fourth bonding pad on the semiconductor die, wherein the second inductor extends laterally a distance greater than a height of the second bonding wire to define a second insulating core centered along an axis substantially perpendicular to the major surface. ~~wherein first and second ends of the first bonding wire are attached to first and second bonding pads, respectively, on the top surface and the coil is formed with a plurality of turns.~~

6. (original) The semiconductor device of claim 5, wherein the first bonding wire has an inductance greater than about five nanohenries.

7. (currently amended) The semiconductor device of claim 1, further comprising a semiconductor package for housing the semiconductor die and the first inductor.

8. (currently amended) The semiconductor device of claim 7, ~~wherein the first bonding wire is attached to a first bonding pad of the semiconductor die,~~ further comprising a second bonding wire attached between a ~~second~~ third bonding pad of the semiconductor die and a lead of the semiconductor package.

9. (original) The semiconductor device of claim 7, wherein the semiconductor package includes an encapsulant for providing the insulating core and for maintaining a position of the coil.

10. (original) The semiconductor device of claim 1, wherein the first bonding wire provides an inductance and the semiconductor die includes an oscillator operating at a frequency determined by the inductance.

11. (original) The semiconductor device of claim 10, wherein the frequency is greater than two gigahertz.

12. (original) The semiconductor device of claim 1, wherein the bonding wire has a substantially circular cross-section.

13. (currently amended) A semiconductor device, comprising:
a semiconductor die having a plurality of bonding pads on a major surface and an edge; and

a first inductor comprising a first bonding wire formed in a coil around a dielectric core and having a first end coupled to a first bonding pad on the major surface and a second end coupled to a second bonding pad on the major surface, and wherein the first inductor projects over the edge a lateral distance greater than its height, and wherein the first inductor projects laterally over the edge at least at two locations.~~a bonding wire electrically coupled to the semiconductor die and having a first portion formed in a coil around a dielectric core and a second portion extending vertically from a surface of the semiconductor device.~~

14. (currently amended) The semiconductor device of claim 13, wherein the dielectric core is centered along an axis substantially perpendicular to the major surface. ~~wherein the bonding wire is attached to first and second bonding points defining a line, and an axis of the dielectric core is substantially parallel to the line.~~

15. (currently amended) The semiconductor device of claim ~~14,~~ 13, wherein the dielectric core is substantially centered along an axis running parallel to the edge. ~~wherein the axis is substantially parallel to an edge of the semiconductor die.~~

16. (original) The semiconductor device of claim 13, further comprising a semiconductor package for housing the semiconductor die and the bonding wire and having a lead that provides the surface for attaching the bonding wire.

Claims 17-19 cancelled.

20. (new) The semiconductor device of claim 3, wherein the second inductor comprises a coil conductor.

21. (new) The semiconductor device of claim 13, further comprising:

first and second leads in spaced relationship with the semiconductor die, each coupled to the semiconductor die; and

a second inductor including a second bonding wire attached at one end to the first lead and attached at a second end to the second lead.